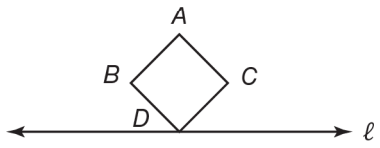
NAME _____ DATE _____ PERIOD _____

9-1 Skills Practice

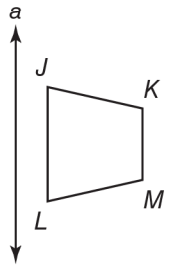
Reflections

Use the given figure and line of reflection. Draw the image in this line using a ruler.

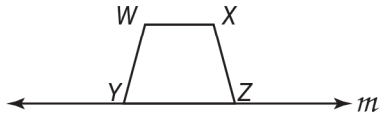
1.



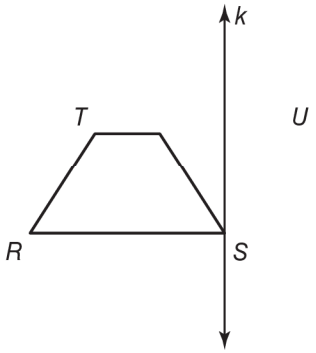
2.



3.

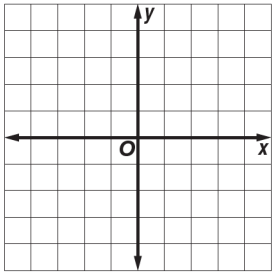


4.

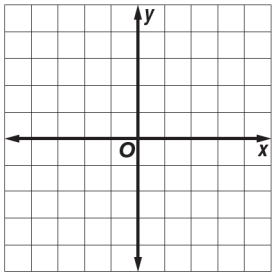


COORDINATE GEOMETRY Graph each figure and its image under the given reflection.

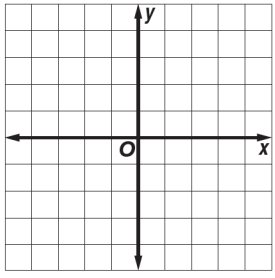
5. $\triangle ABC$ with vertices $A(-3, 2)$, $B(0, 1)$, and $C(-2, -3)$ in the line $y = x$



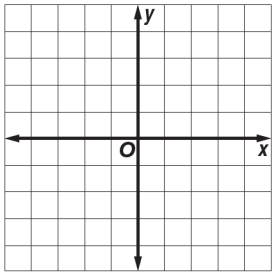
6. trapezoid $DEFG$ with vertices $D(0, -3)$, $E(1, 3)$, $F(3, 3)$, and $G(4, -3)$ in the y-axis



7. parallelogram $RSTU$ with vertices $R(-2, 3)$, $S(2, 4)$, $T(2, -3)$ and $U(-2, -4)$ in the line $y = x$



8. square $KLMN$ with vertices $K(-1, 0)$, $L(-2, 3)$, $M(1, 4)$, and $N(2, 1)$ in the x-axis



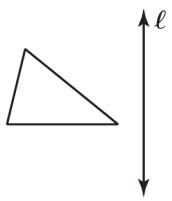
NAME _____ DATE _____ PERIOD _____

9-1 Practice

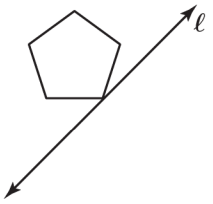
Reflections

Use the figure and given line of reflection. Then draw the reflected image in this line using a ruler.

1.

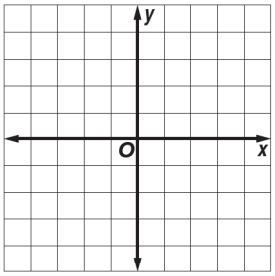


2.

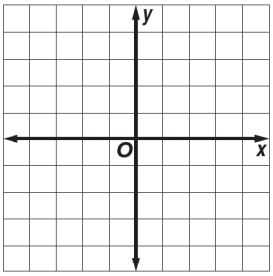


COORDINATE GEOMETRY Graph each figure and its image under the given reflection.

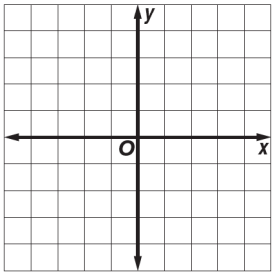
3. quadrilateral $ABCD$ with vertices $A(-3, 3)$, $B(1, 4)$, $C(4, 0)$, and $D(-3, -3)$ in the line $y = x$



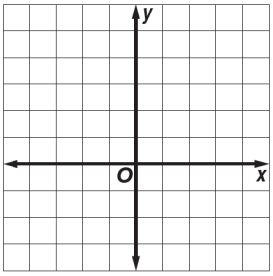
4. $\triangle FGH$ with vertices $F(-3, -1)$, $G(0, 4)$ and $H(3, -1)$ in the line $y = x$



5. rectangle $QRST$ with vertices $Q(-3, 2)$, $R(-1, 4)$, $S(2, 1)$, and $T(0, -1)$ in the x-axis



6. trapezoid $HIJK$ with vertices $H(-2, 5)$, $I(2, 5)$, $J(-4, -1)$, and $K(-4, 3)$ in the y-axis



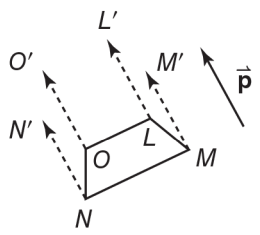
NAME _____ DATE _____ PERIOD _____

9-2 Skills Practice

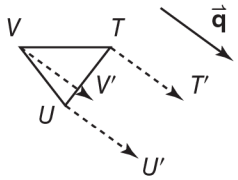
Translations

Use the figure and the given translation vector. Then draw the translation of the figure along the translation vector.

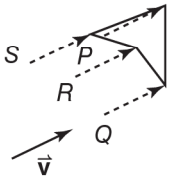
1.



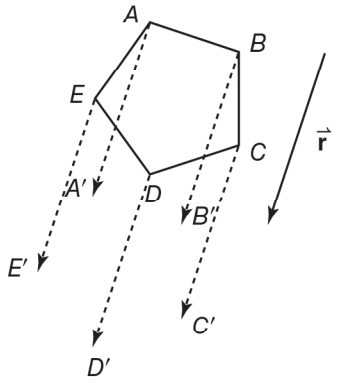
2.



3.

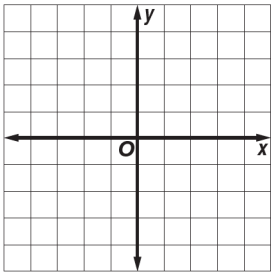


4.

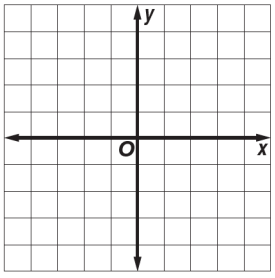


Graph each figure and its image along the given vector.

5. $\triangle JKL$ with vertices $J(-4, -4)$, $K(-2, -1)$, and $L(2, -4)$; $\langle 2, 5 \rangle$



6. quadrilateral $LMNP$ with vertices $L(4, 2)$, $M(4, -1)$, $N(0, -1)$, and $P(1, 4)$; $\langle -4, -3 \rangle$



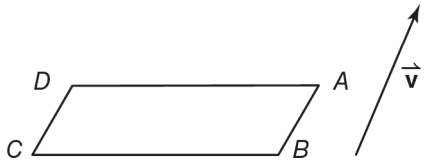
NAME _____ DATE _____ PERIOD _____

9-2 Practice

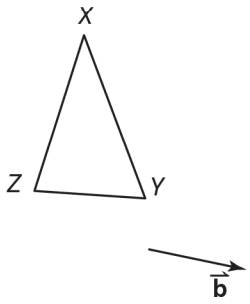
Translations

Use the figure and the given translation vector. Then draw the translation of the figure along the given translation vector.

1.

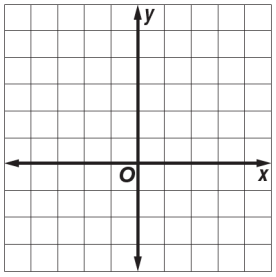


2.

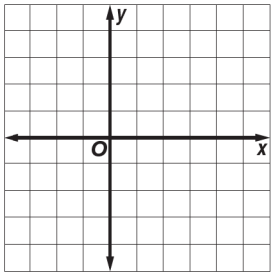


Graph each figure and its image along the given vector.

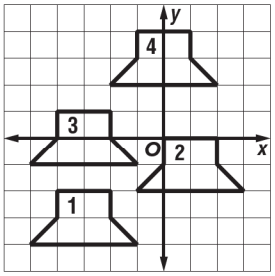
3. quadrilateral *TUWX* with vertices $T(-1, 1)$, $U(4, 2)$, $W(1, 5)$, and $X(-1, 3)$; $\langle -2, -4 \rangle$



4. pentagon *DEFGH* with vertices $D(-1, -2)$, $E(2, -1)$, $F(5, -2)$, $G(4, -4)$, and $H(1, -4)$; $\langle -1, 5 \rangle$



ANIMATION Find the translation that moves the figure on the coordinate plane.



5. figure 1 → figure 2

6. figure 2 → figure 3

7. figure 3 → figure 4